



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0258; Project Identifier AD-2020-01565-T]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 747-400, 747-400D, and 747-400F series airplanes. This proposed AD was prompted by reports of burned Boeing Material Specification (BMS) 8-39 urethane foam found in certain locations on the airplane; investigation revealed that the fire-retardant properties degrade with age. This proposed AD would require inspecting the insulation blankets in certain areas of the forward cargo compartment for exposed BMS 8-39 urethane foam, not encapsulated by a protective fire resistant barrier, and for seal integrity, and replacing the BMS 8-39 urethane foam and seal if necessary. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0258.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0258; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3584; email: Julie.Linn@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0258; Project Identifier AD-2020-01565-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR § 11.35, the FAA will post all comments we receive, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax:

206-231-3584; email: Julie.Linn@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA has received reports of burned BMS 8-39 urethane foam, a material with fire-retardant properties. Investigation revealed that the fire-retardant properties degrade after five to ten years, and degraded BMS 8-39 urethane foam can be a fuel source for a fire if exposed to an ignition source. Foam and tape are used to make a seal at penetrations that go through the insulation blankets. The type of foam that is used, how that foam is installed, and how it is taped are all equally important for the integrity of the seal. Previously issued service information provided procedures for replacing the BMS 8-39 urethane foam in most areas, but it did not include an area between body station (STA) 960 and STA 1000 on the left and right sides of the forward cargo compartment. Degraded BMS 8-39 urethane foam used in seals may fail to maintain sufficient halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and may fail to prevent penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression, which could result in loss of control of the airplane.

Related AD

The FAA issued AD 2013-11-04, Amendment 39-17464 (78 FR 33193, June 4, 2013) (AD 2013-11-04), for certain The Boeing Company airplanes, including the same Model 747-400, 747-400D, and 747-400F series airplanes identified in this NPRM. AD 2013-11-04 resulted from a report from Boeing indicating that various areas of the airplane (including flight deck and cargo compartments) were assembled with seals made of BMS 8-39 urethane foam; operators subsequently reported finding burned BMS 8-39 urethane foam in those locations. AD 2013-11-04 requires replacing certain seals made of

BMS 8-39 urethane foam. AD 2013-11-04 resulted from operator or in-service reports of burned BMS 8-39 urethane foam, and a report from the airplane manufacturer indicating that airplanes were assembled, throughout various areas of the airplane (including flight deck and cargo compartments), with seals made of BMS 8-39 urethane foam. The FAA issued AD 2013-11-04 to address the failure of urethane seals to maintain sufficient halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and to prevent penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression.

This NPRM does not propose to supersede AD 2013-11-04. Rather, the FAA has determined that a stand-alone AD would be more appropriate because the expanded inspection area applies only to Model 747-400, 747-400D, and 747-400F series airplanes, a small subset of the applicability of AD 2013-11-04.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020. The service information describes procedures for doing a general visual inspection of the insulation blankets in the area between STA 960 and STA 1000 on the left and right sides of the forward cargo compartment for exposed BMS 8-39 urethane foam, not encapsulated by a protective fire resistant barrier, and seal integrity, and replacing any BMS 8-39 urethane foam that is found exposed and any seal that does not have acceptable integrity for a smoke barrier. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

The FAA is proposing this AD because the agency evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishment of the actions identified in Boeing Requirements Bulletin 747-25-3725 RB, described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0258.

Explanation of Requirements Bulletin

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins.

In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.” The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Costs of Compliance

The FAA estimates that this proposed AD affects 109 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	3 work-hours X \$85 per hour = \$255	\$0	\$255	\$27,795

The FAA estimates the following costs to do any necessary on-condition actions that would be required. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
1 work-hour X \$85 per hour = \$85 per finding	Minimal	\$85 per finding

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national

Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

The Boeing Company: Docket No. FAA-2021-0258; Project Identifier

AD-2020-01565-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-400, 747-400D, and 747-400F series airplanes, certificated in any category, as identified in Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020.

(d) Subject

Air Transport Association (ATA) of America Code 25, Equipment/furnishings.

(e) Unsafe Condition

This AD was prompted by reports of burned Boeing Material Specification (BMS) 8-39 urethane foam found in certain locations on the airplane; investigation revealed that the fire-retardant properties degrade with age. The FAA is issuing this AD to address degraded BMS 8-39 urethane foam used in seals, which may fail to maintain sufficient halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and may fail to prevent penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression, which could result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Service Bulletin 747-25-3725, dated October 27, 2020, which is referred to in Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020.

(h) Exception to Service Information Specifications

Where Boeing Requirements Bulletin 747-25-3725 RB, dated October 27, 2020, uses the phrase “after the Original Issue date of Requirements Bulletin 747-25-3725 RB,” this AD requires using “the effective date of this AD.”

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

(1) For more information about this AD, contact Julie Linn, Aerospace Engineer, Cabin Safety and Environmental Systems Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3584; email: Julie.Linn@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued on March 30, 2021.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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